

Table 1

Experimental conditions of channel doping
with respect to the silicon-containing amorphous semiconductor film

| substrate No. | chemical oxide film | diborane dilution ratio |
|---------------|---------------------|---|
| 1 | None | 0.1%B ₂ H ₆ /H ₂ |
| 2 | Exist | 0.1%B ₂ H ₆ /H ₂ |
| 3 | None | 1.0%B ₂ H ₆ /H ₂ |
| 4 | Exist | 1.0%B ₂ H ₆ /H ₂ |

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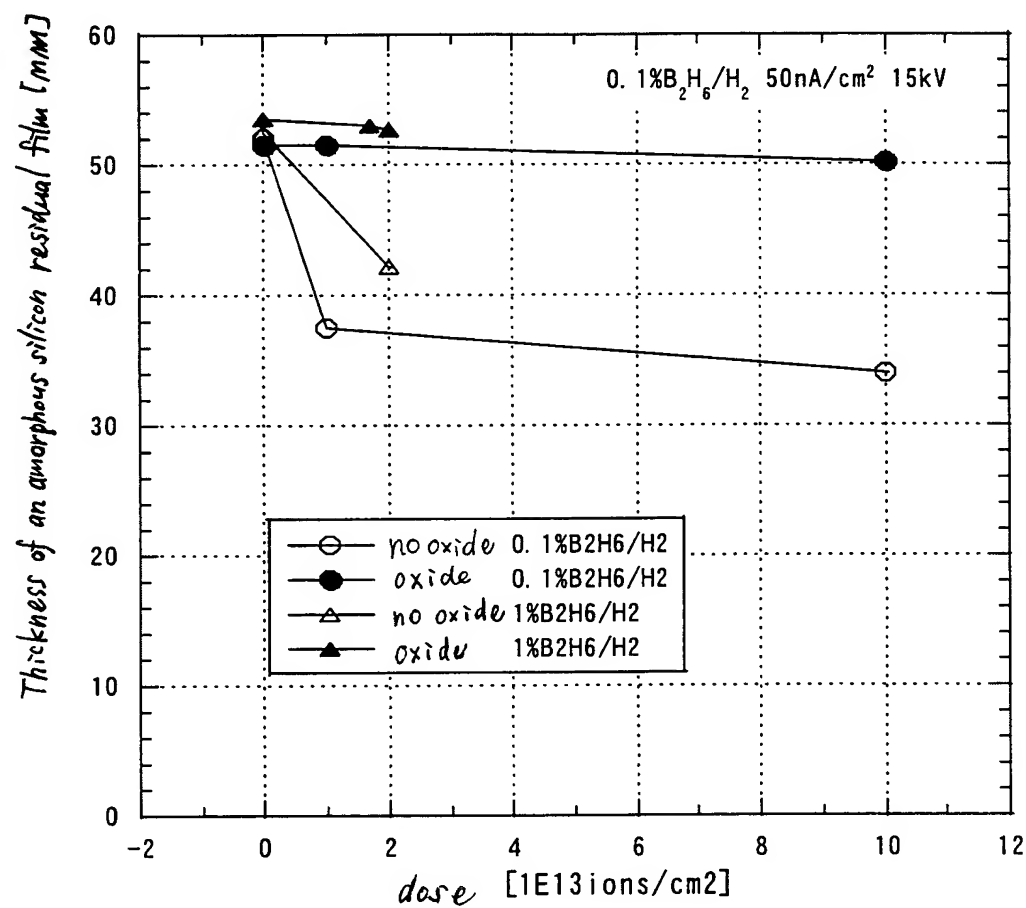


Fig. 1

Fig. 2A

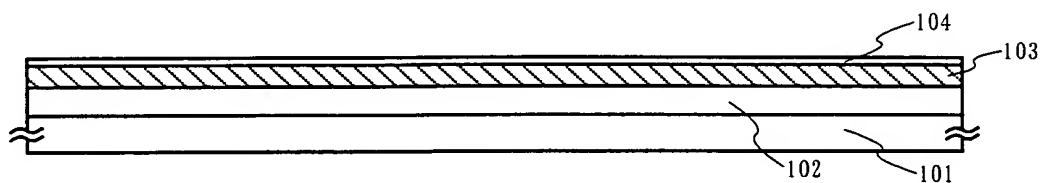


Fig. 2B

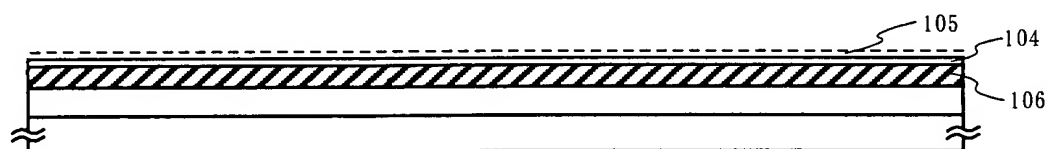


Fig. 2C

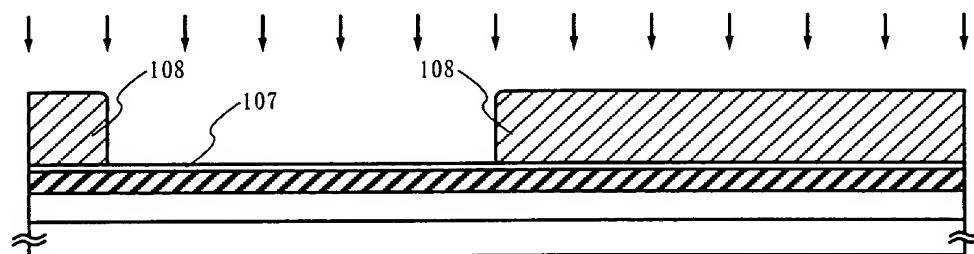


Fig. 2D

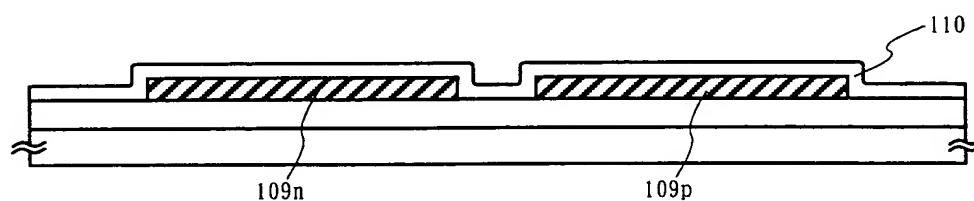


Fig. 2E

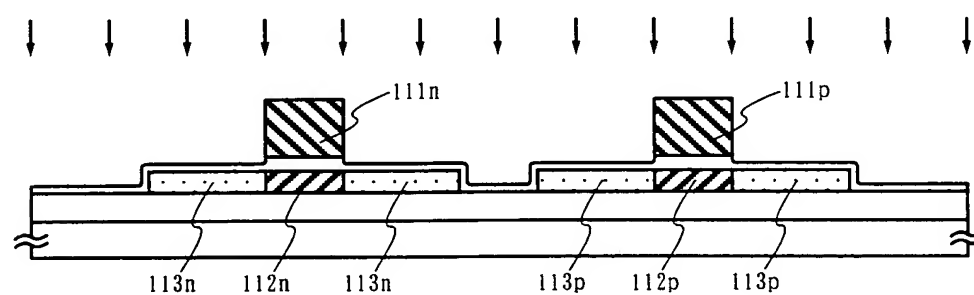


Fig. 3A

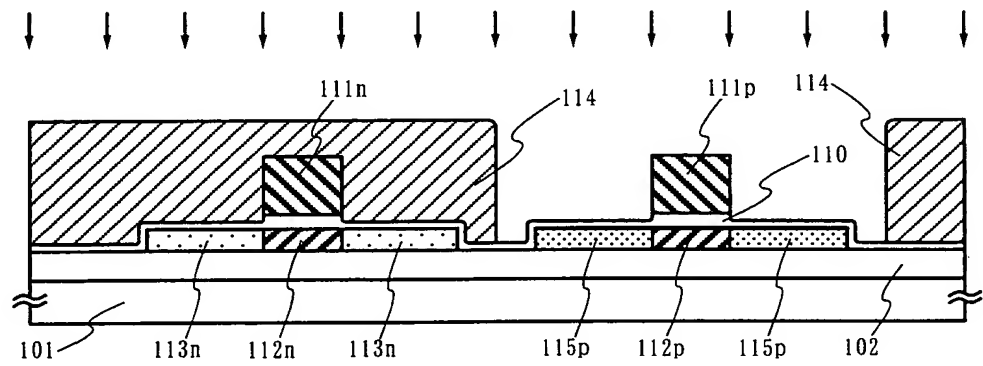


Fig. 3B

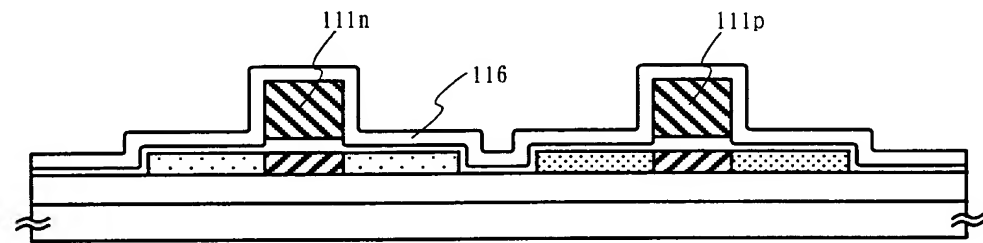


Fig. 3C

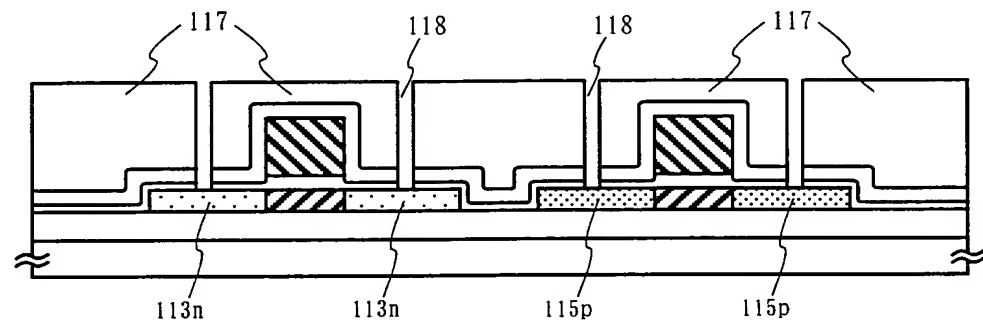
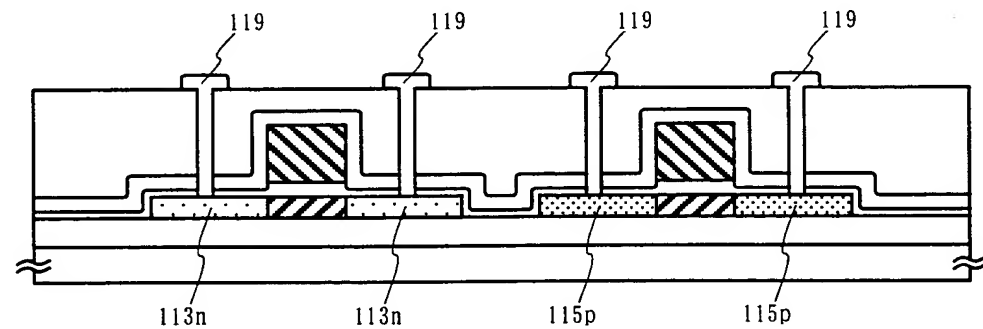


Fig. 3D



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Fig. 4A

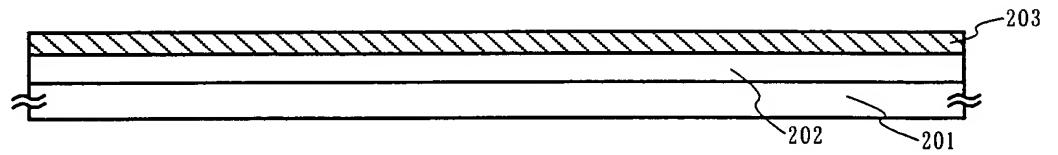


Fig. 4B

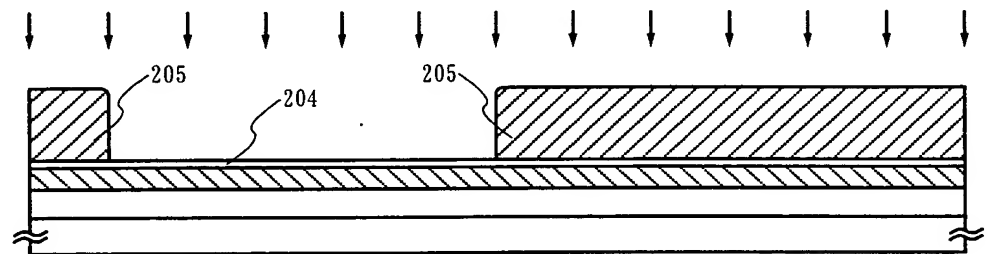


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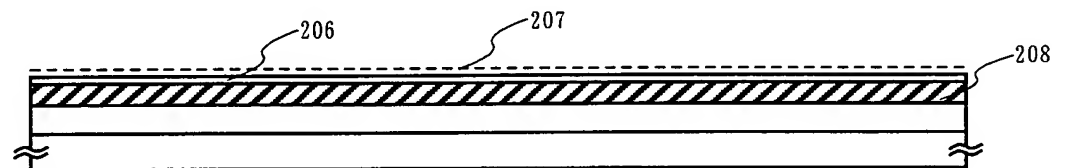


Fig. 4D

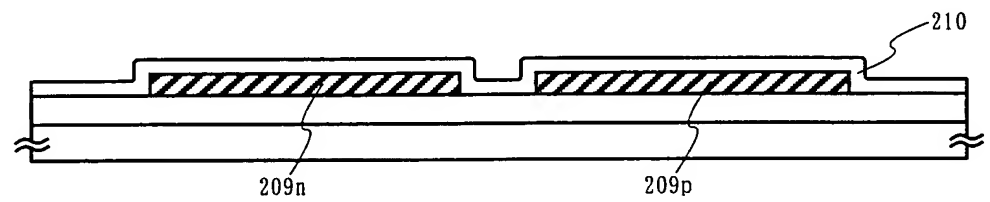


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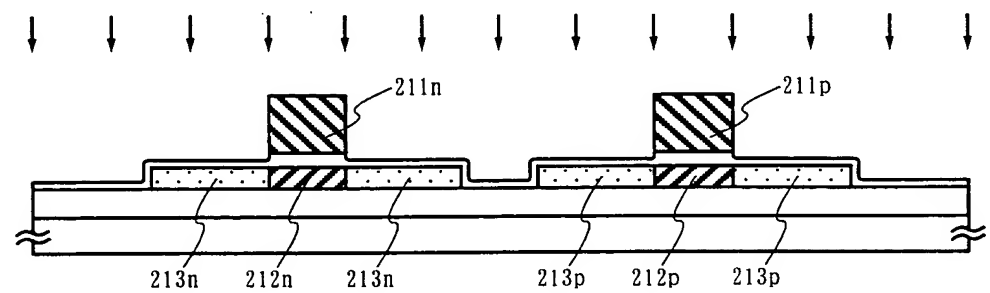


Fig. 5A

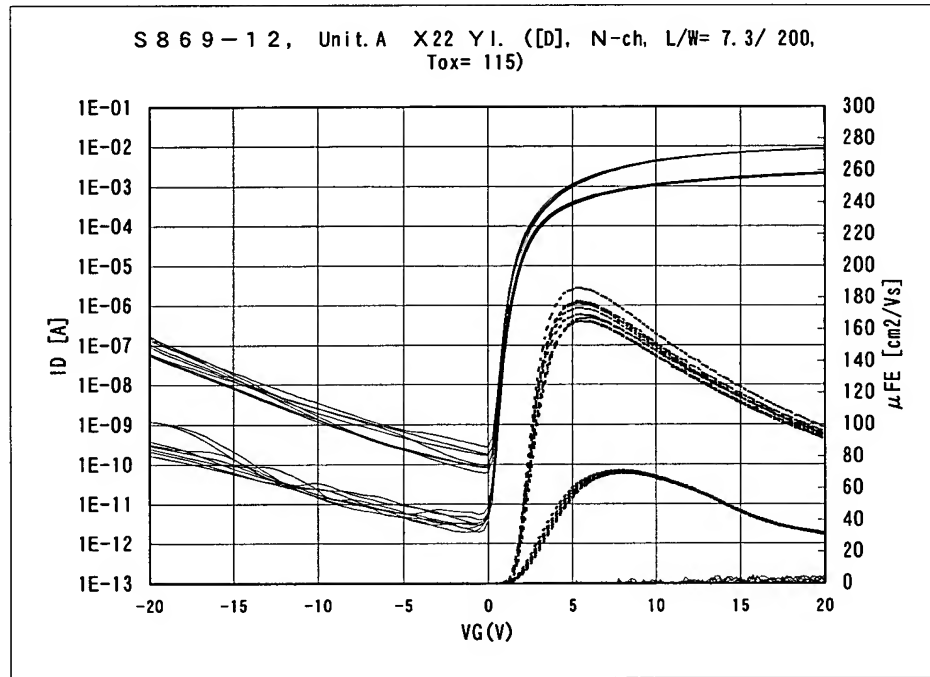


Fig. 5B

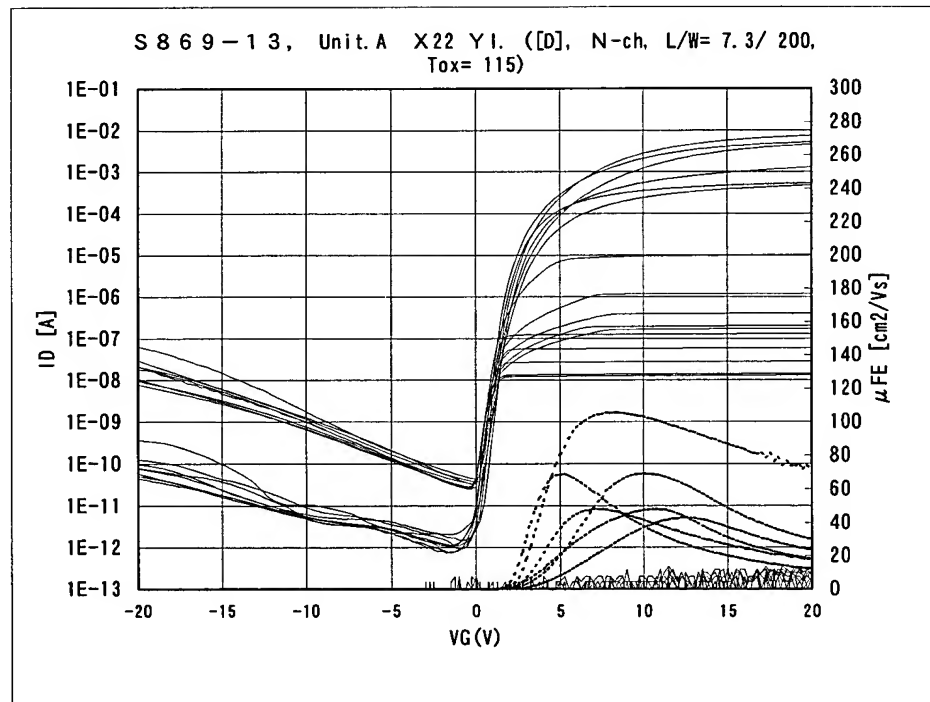


Fig. 6A

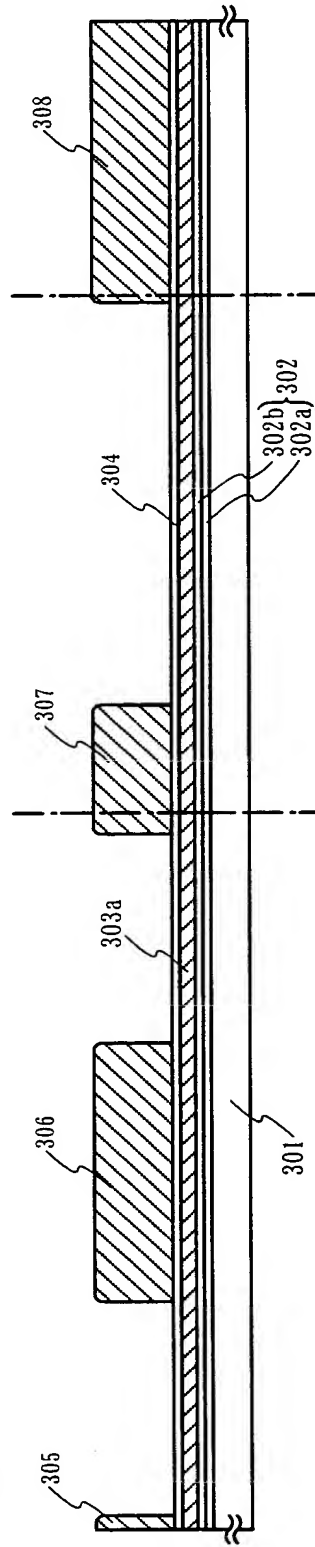


Fig. 6B

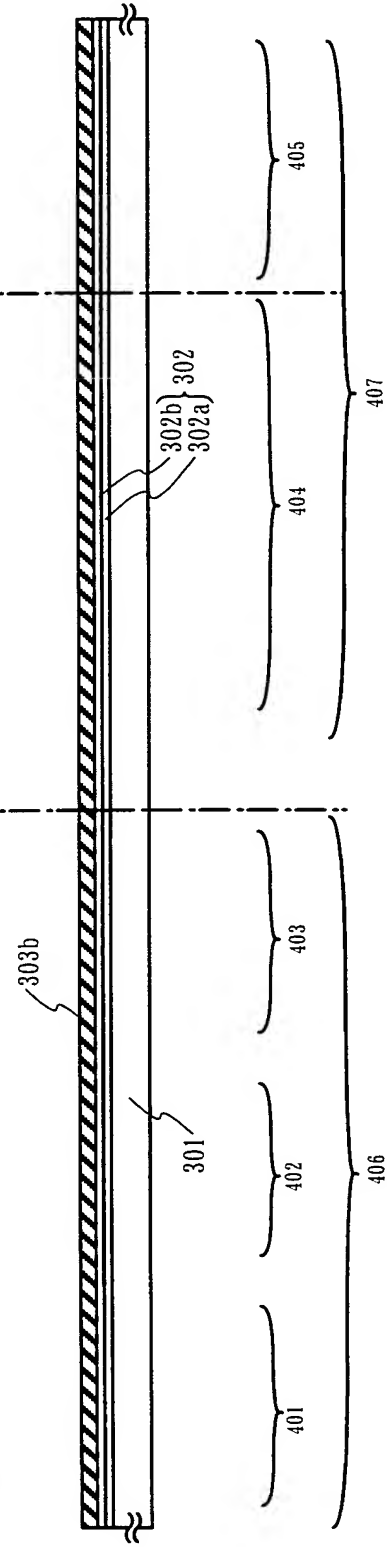


Fig. 7A

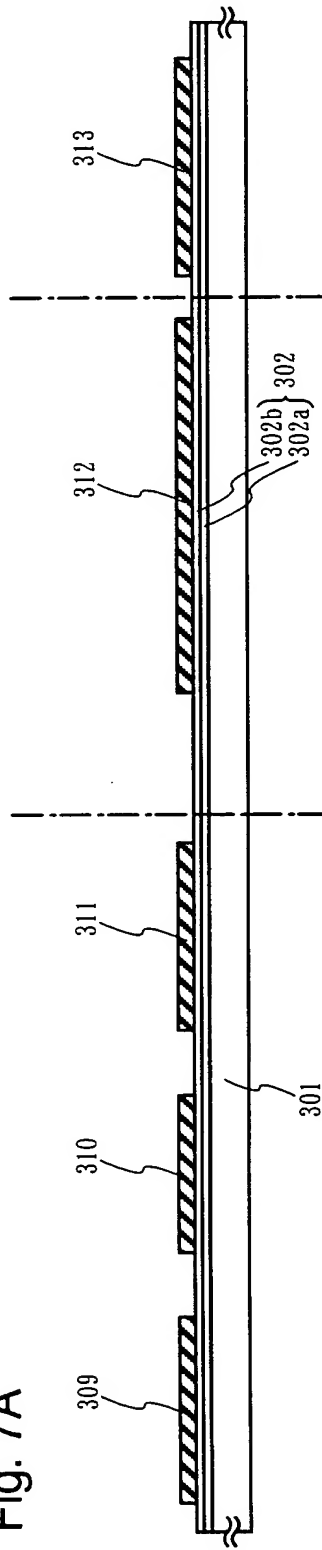
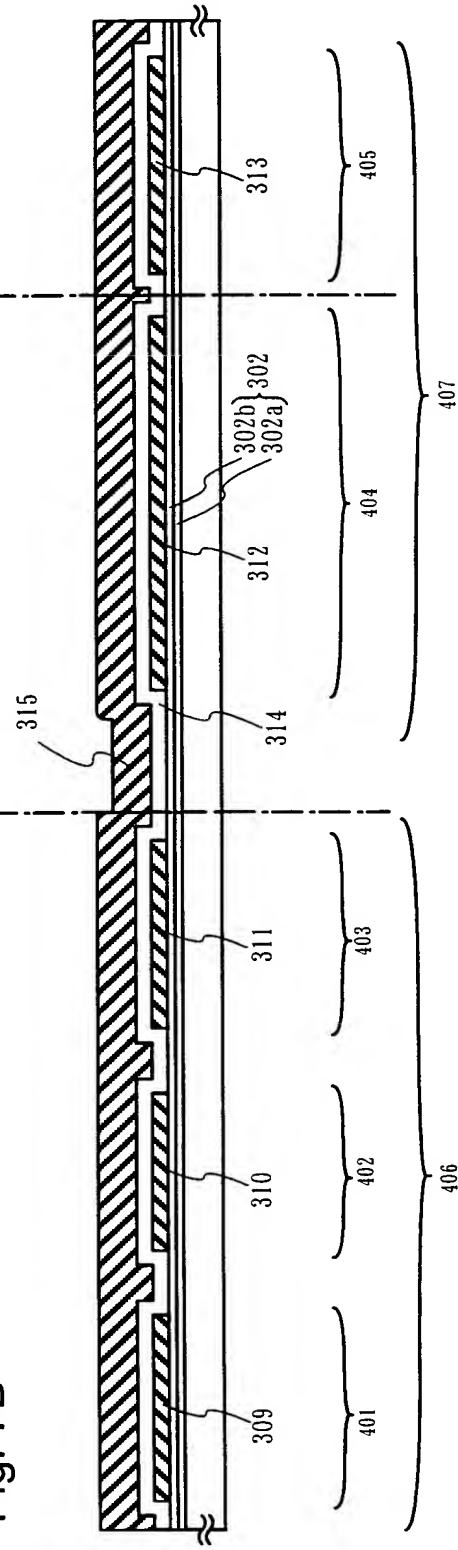


Fig. 7B



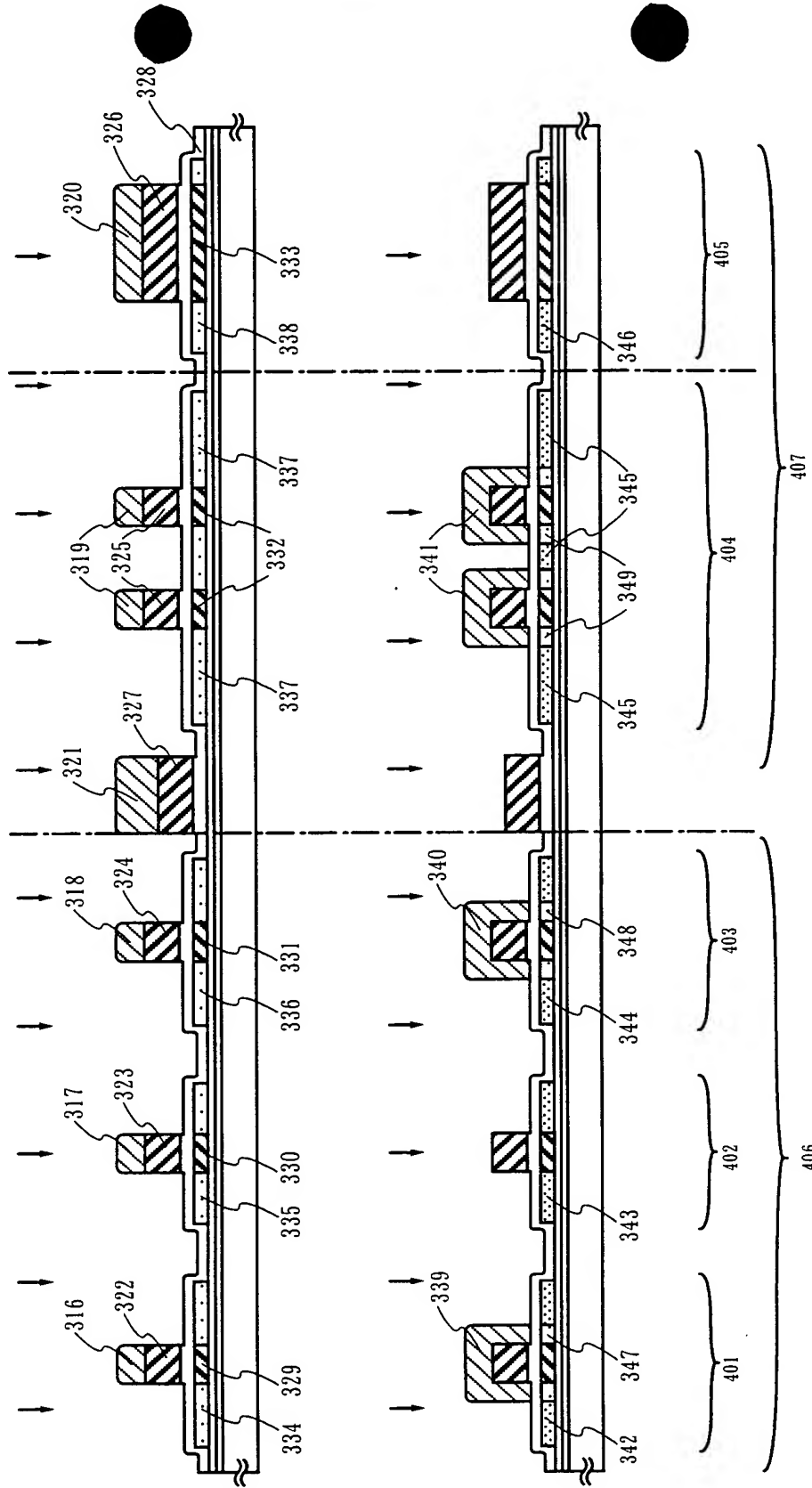


Fig. 8A

Fig. 8B

Fig. 9A

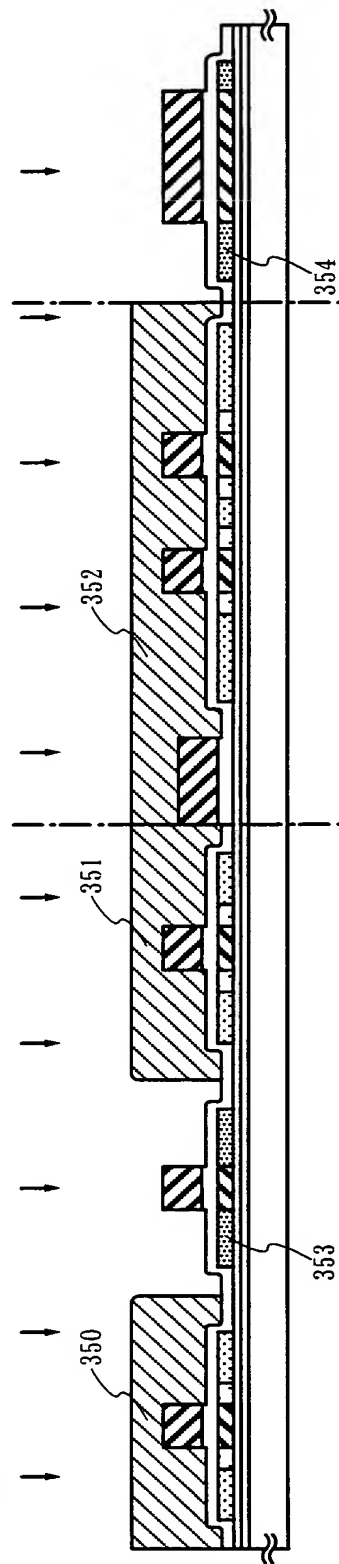
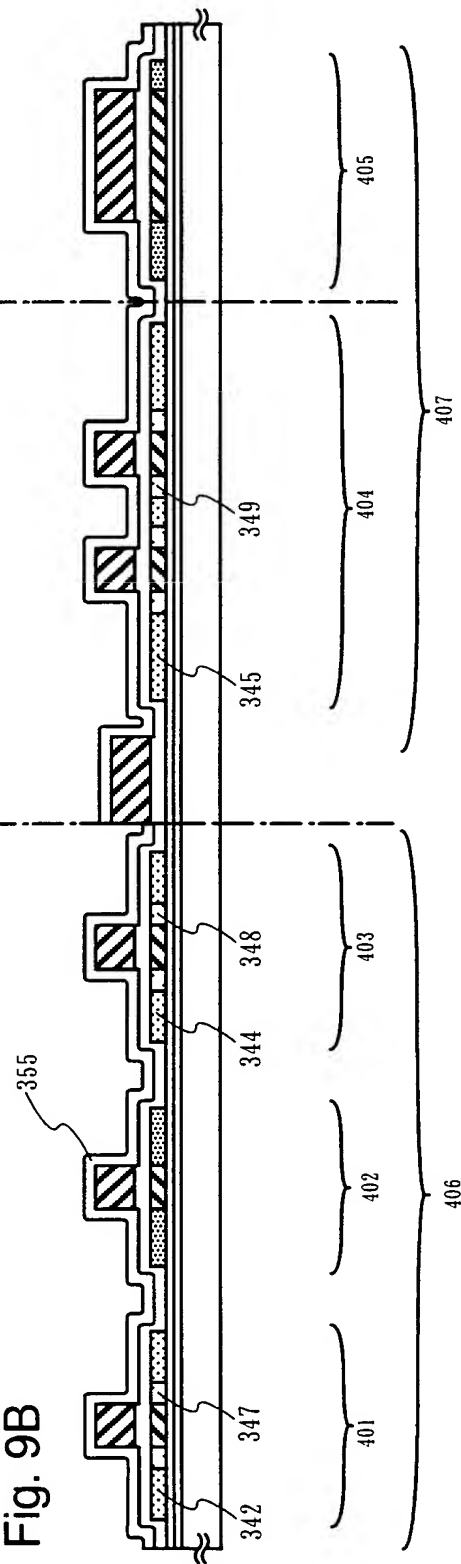


Fig. 9B



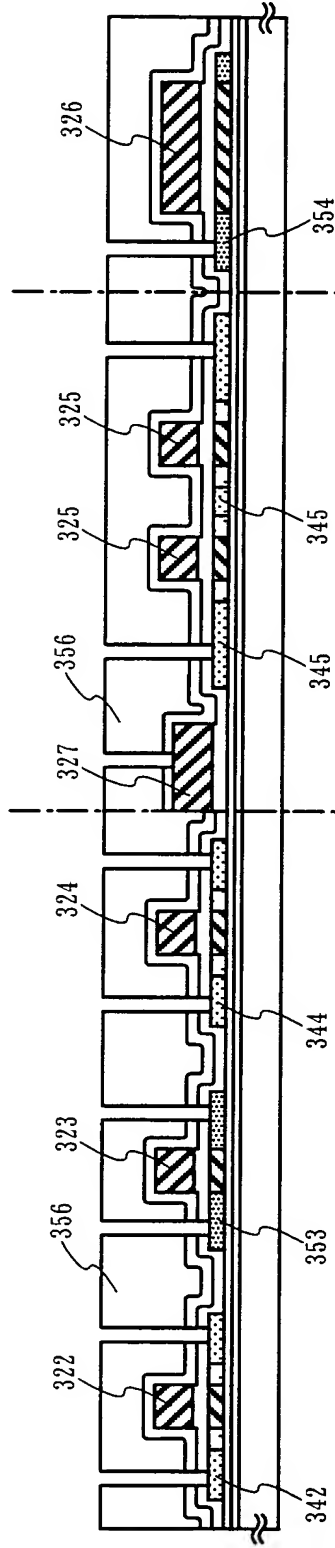


Fig. 10A

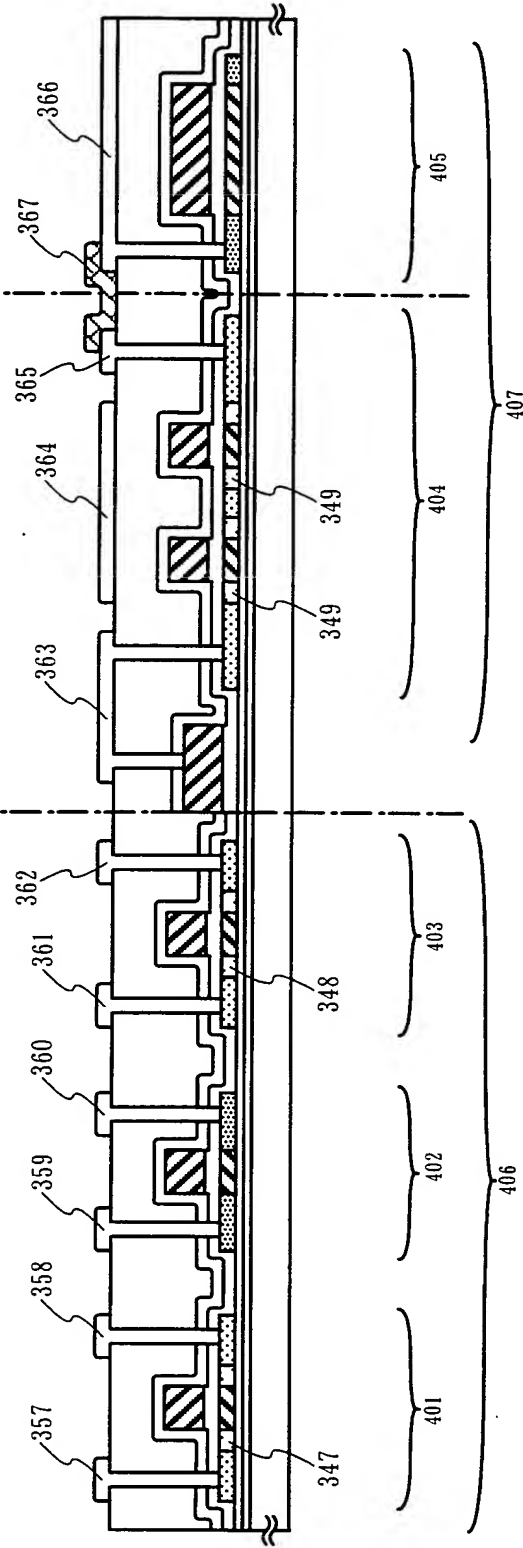


Fig. 10B

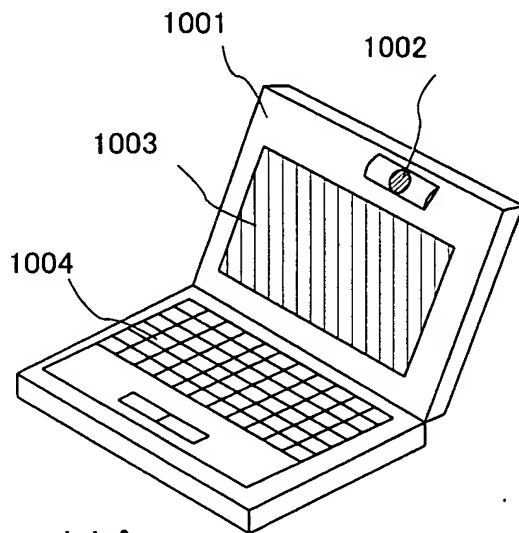


Fig. 11A

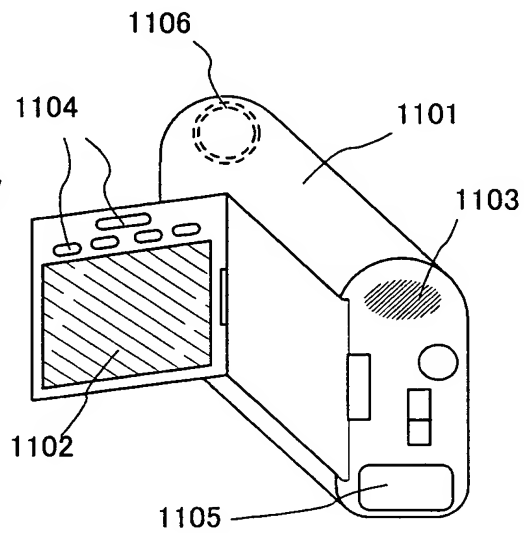


Fig. 11B

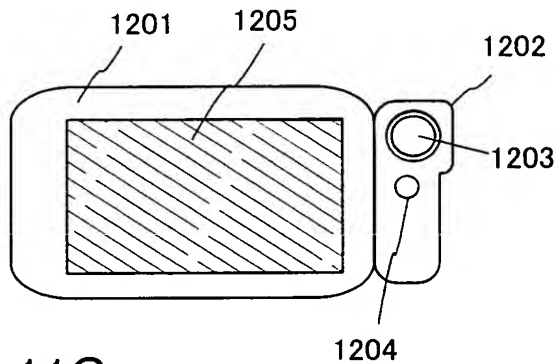


Fig. 11C

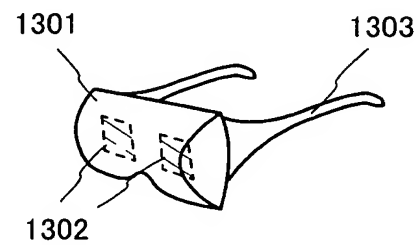


Fig. 11D

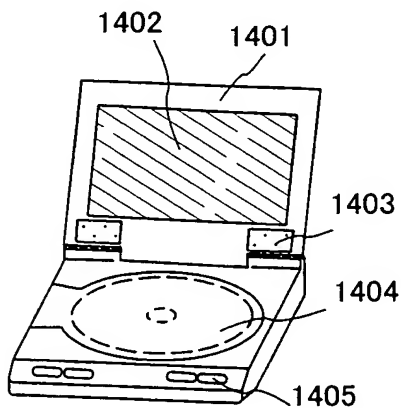


Fig. 11E

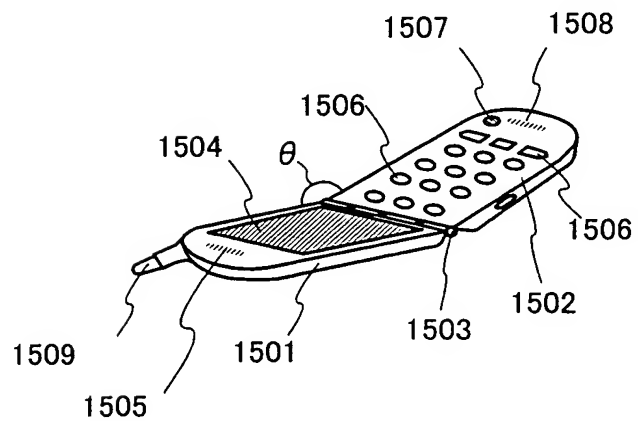
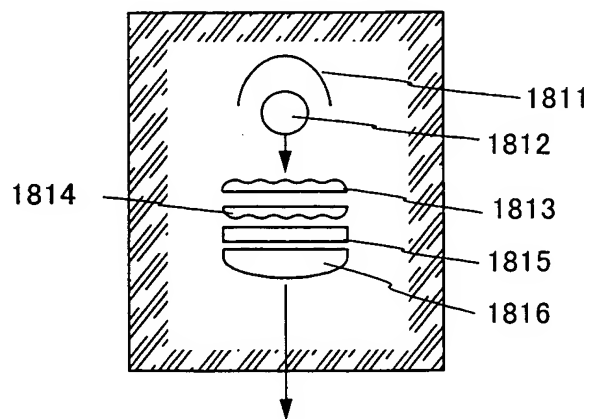
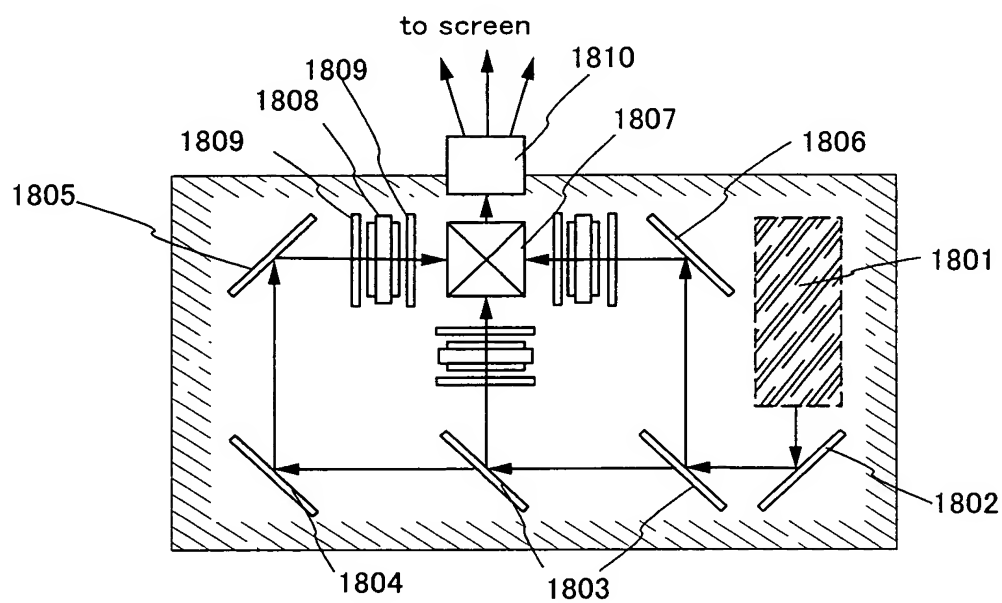
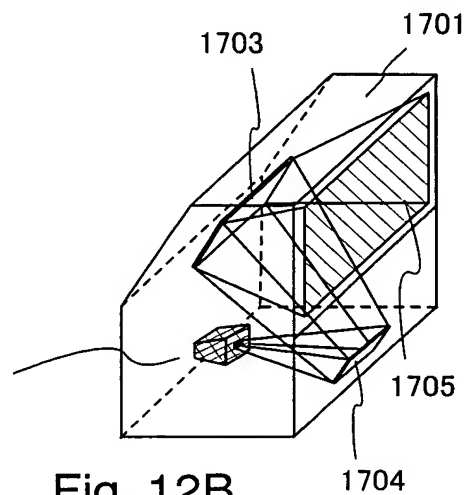
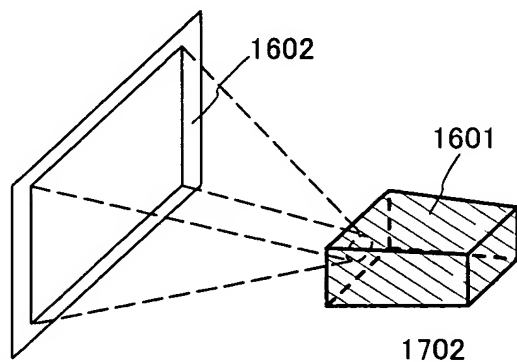


Fig. 11F



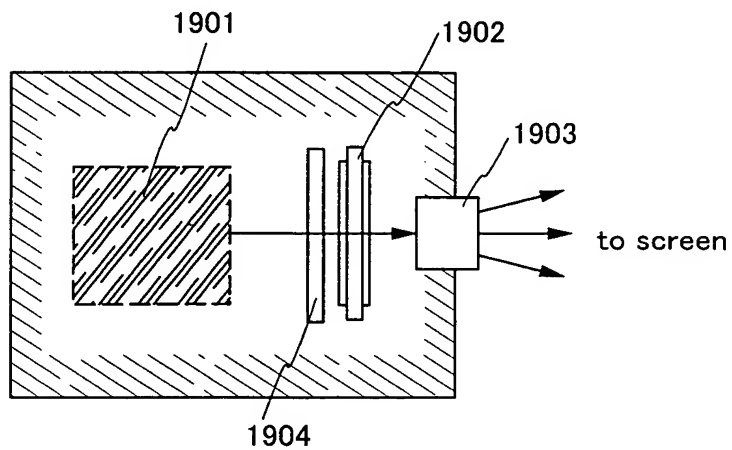


Fig. 13A

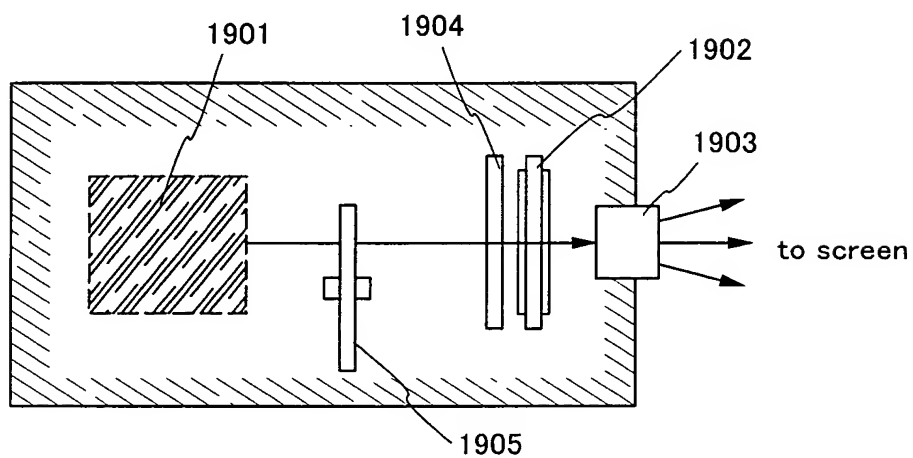


Fig. 13B

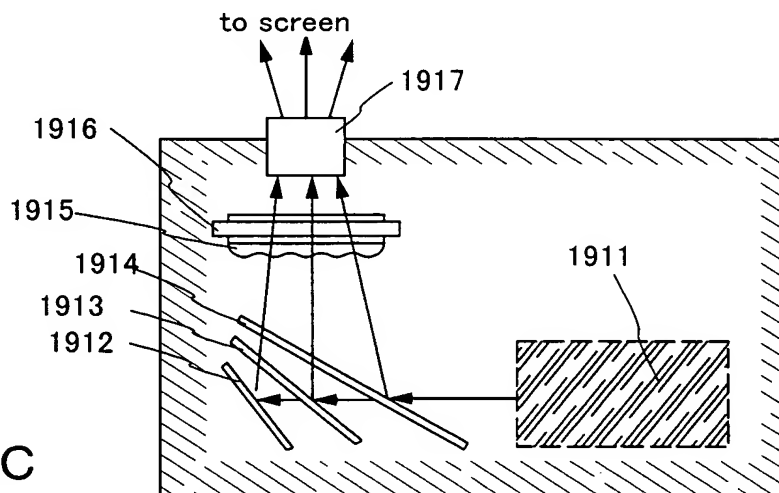


Fig. 13C